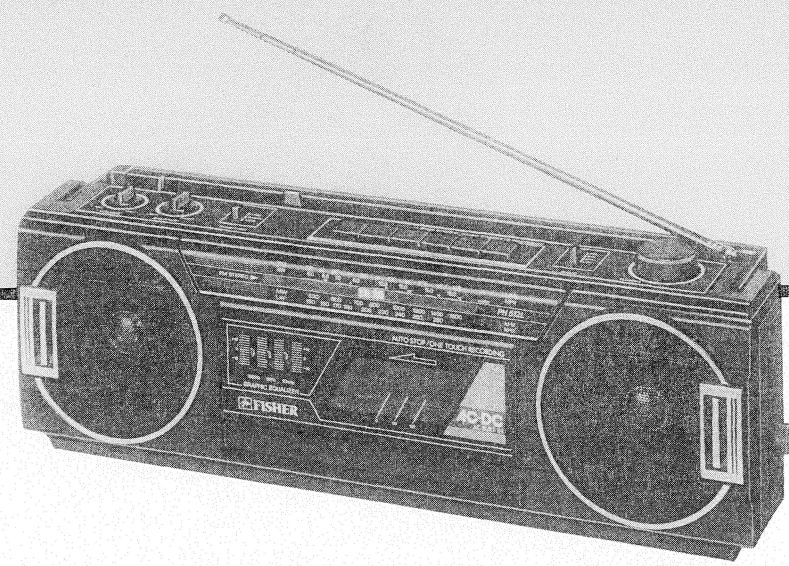
SERVICE MANUAL

FISHER

PH512L (EUROPE)
PH512L (FRANCE)
4Band Stereo Radio/ Cassette Recorder



SPECIFICATIONS

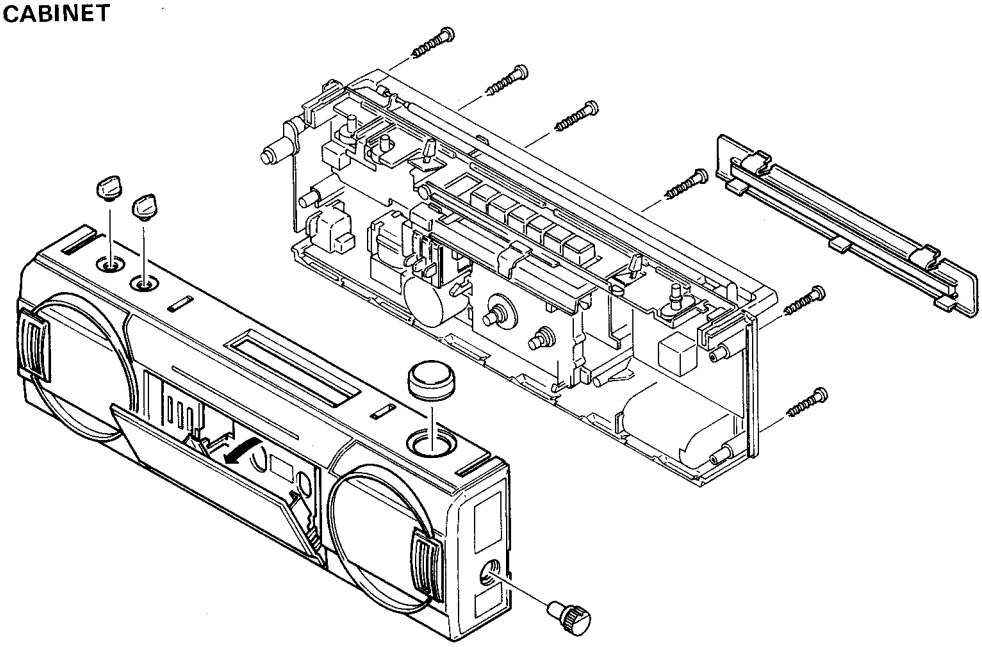
Recording system	AC bias, 4-track stereo
Erasing system	Magnet erase
Tape speed	4.75 cm/sec (1-7/8 i.p.s.)
Frequency range	LW: 150 – 285 kHz
	MW: 525 – 1,605 kHz
	SW: 5.95 – 18 MHz
	FM: 87.5 – 108 MHz
Terminal impedance	LINE IN: 47k ohms (100 mV)
	PHONES: 32 ohms
Frequency response	80 – 12,000 Hz
Output power	5 W (maximum)
Power source	DC: 7.5V, "R20" type x 5
	AC: 120/220 V, 50/60 Hz
Dimensions	414 (W) x 134 (H) x 94 (D) mm
Weight	Approx. 2.5kg including batteries

Specifications subject to change without notice.

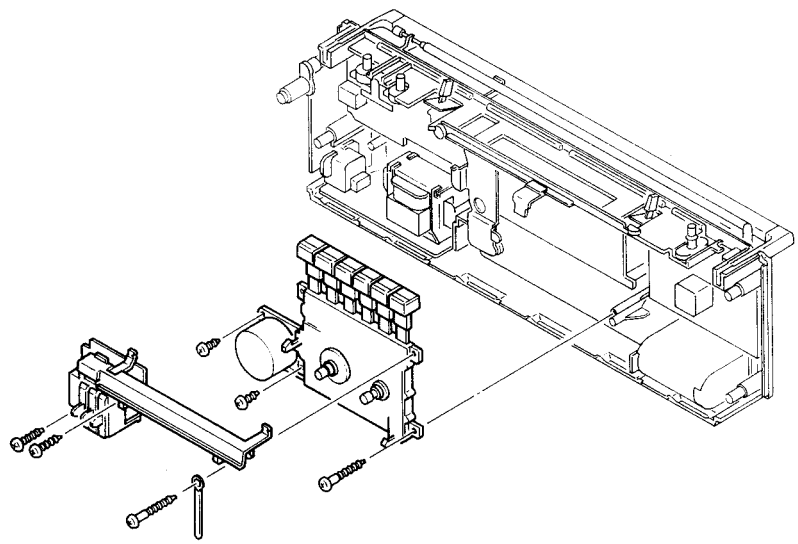
WM-18159

DISASSEMBLY

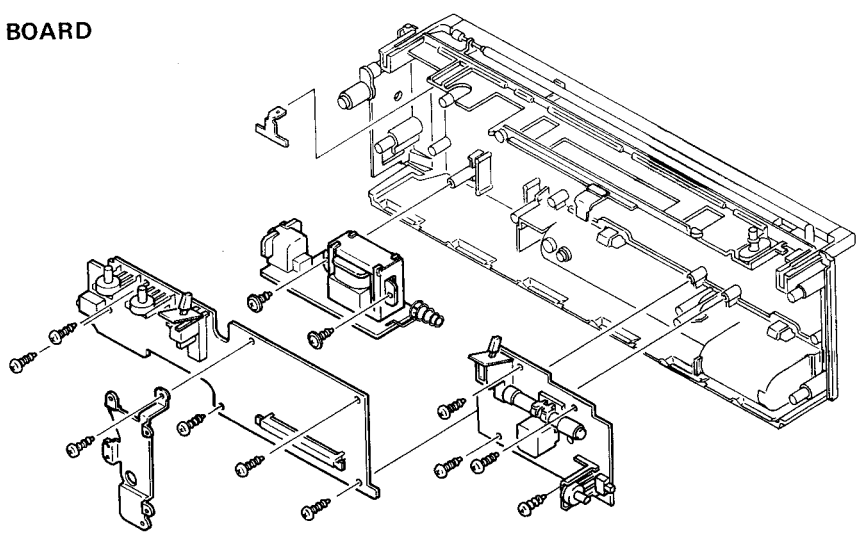
REMOVAL OF CABINET



REMOVAL OF MECHANISM

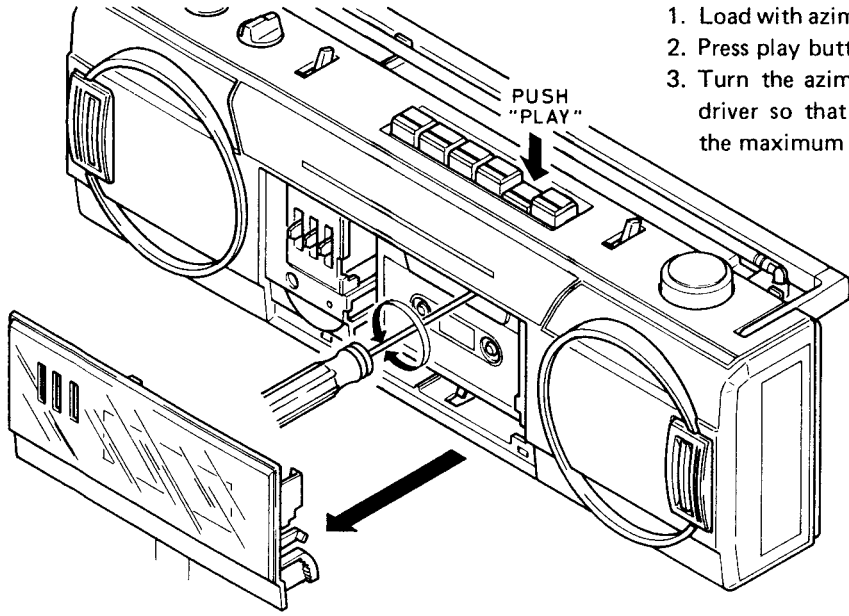


REMOVAL OF P.C. BOARD



ADJUSTMENT

REMOVAL OF TOP LID



HEAD AZIMUTH ADJUSTMENT

- **Adjusting the haed azimuth**

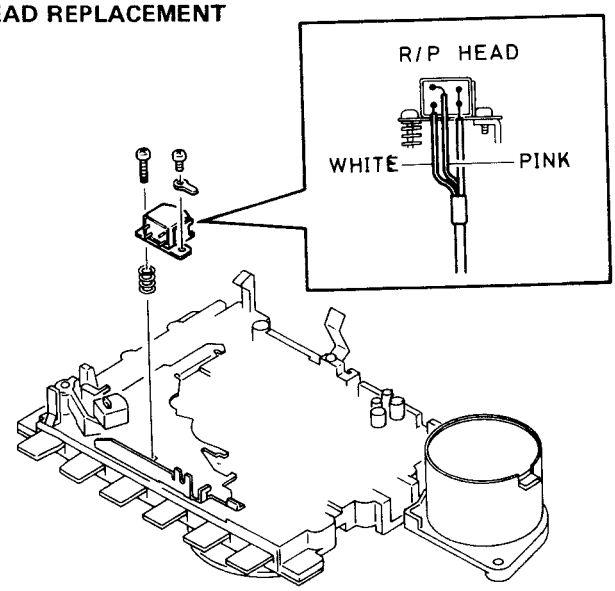
* When the head is replaced, demagnetize it with head eraser.

* Clean the head before adjusting.

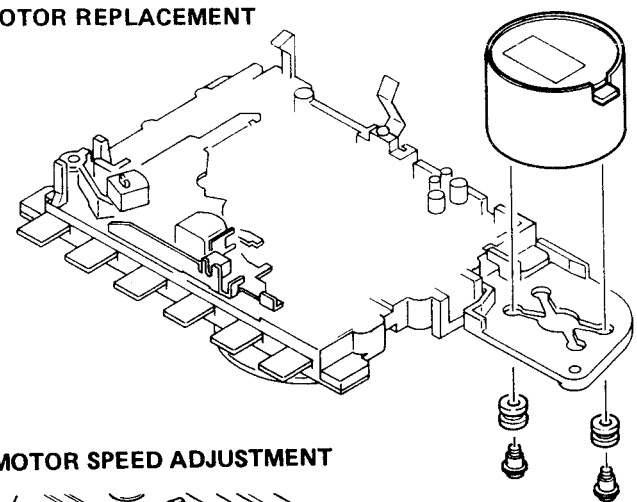
* Remove the top lid.

1. Load with azimuth adjusting tape (VTT-658 etc.; 10 kHz).
2. Press play button.
3. Turn the azimuth adjusting screw with a Phillips screw-driver so that the right and left channel outputs attain the maximum during play back.

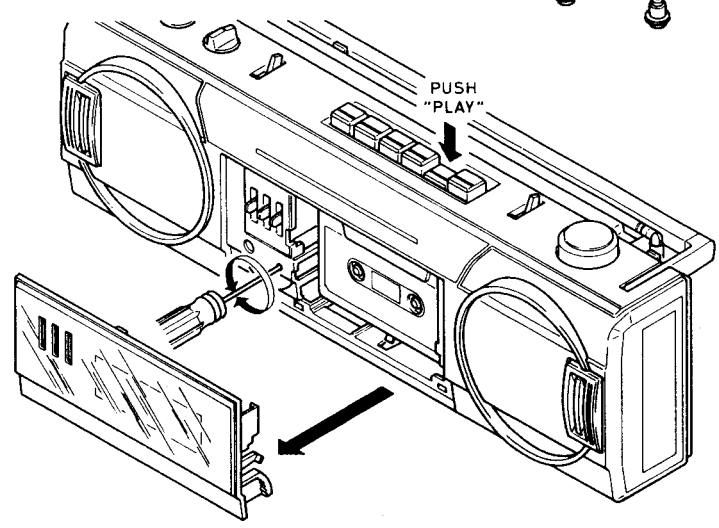
HEAD REPLACEMENT



MOTOR REPLACEMENT



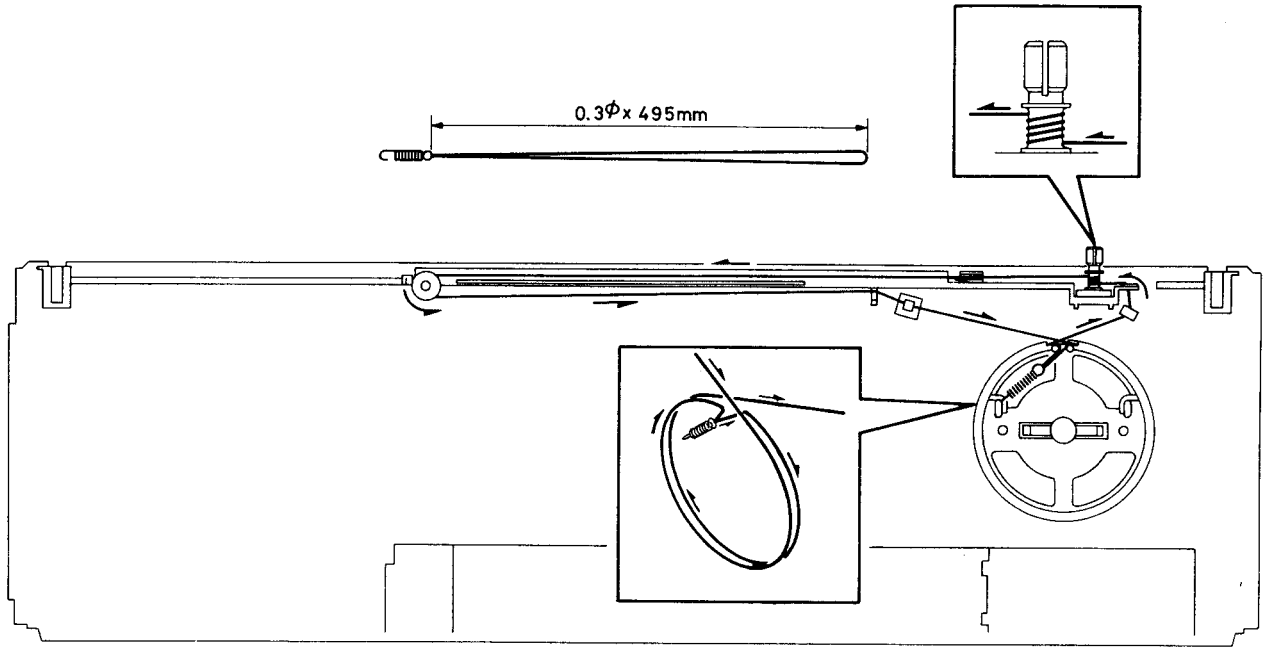
MOTOR SPEED ADJUSTMENT



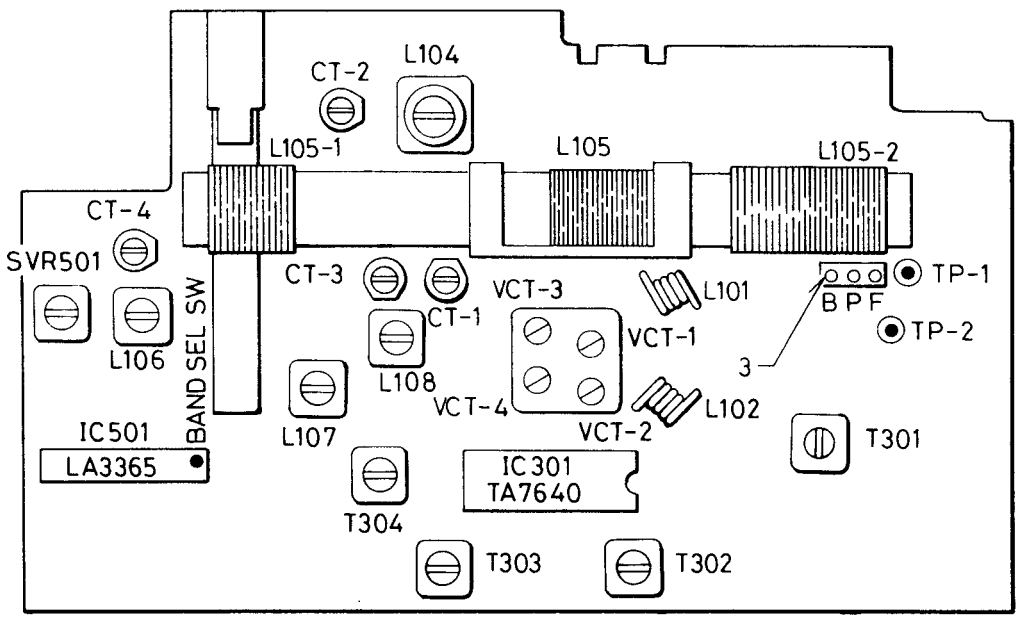
- **Adjusting the motor speed**

1. Load with test tape (MTT-111, etc, 3,000 Hz).
2. Press play button.
3. Turn SVR provided in the back side of the motor unitl the frequency counter reads 3,000 Hz.

DIAL CORD STRINGING



PARTS LOCATION



ADJUSTMENT OF TUNER

* Use a plastic screwdriver for adjustment.
* Adjust the intermediate frequency of MW, LW, SW and FM to the frequency of ceramic filter.

Supply voltage	: DC 7.5V
Phones impedance	: 32 ohm
Standard output	: 1 mW (0.2V)
Function selector	: RADIO
Graphic Equalizer	
100 Hz 1 kHz 10 kHz	: Center

ADJUSTMENT OF TUNER

MW **BAND SELECT SWITCH: MW**

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope
		Input	Output				
1	IF	Place Sweep Generator's terminal closely to L105-1	Connect sweep generator to IC301(9), GND	460kHz	Low	T302, 304	MAX.
2	Tuning Coverage	Connect AM SG to Test Loop	Connect VTVM to speaker terminals	505kHz	Low End	L107	MAX.
3				1650kHz	High End	VCT-4	
4	Tracking	Connect AM SG to Test Loop	Connect VTVM to speaker terminals	600kHz	600kHz	L105-1	MAX.
5				1400kHz	1400kHz	VCT-3	
6	Repeat adjustments						

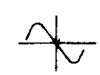
LW **BAND SELECT SWITCH: LW**

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope
		Input	Output				
1	Tuning Coverage	Connect AM SG to Test Loop	Connect VTVM to speaker terminals	145kHz	Low End	L108	MAX.
2				295kHz	High End	CT-3	
3	Tracking	Connect AM SG to Test Loop	Connect VTVM to speaker terminals	160kHz	160kHz	L105-2	MAX.
4				280kHz	280kHz	CT-1	
5	Repeat adjustments						

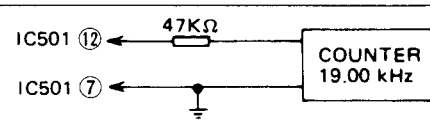
SW **BAND SELECT SWITCH: SW**

Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope
		Input	Output				
1	Tuning Coverage	Connect AM SG to ANT terminal through dummy	Connect VTVM to speaker terminals	5.8MHz	Low End	L106	MAX.
2				19.0MHz	High End	CT-4	
3	Tracking	Connect AM SG to ANT terminal through dummy	Connect VTVM to speaker terminals	7.0MHz	7.0MHz	L104	MAX.
4				18.0MHz	18.0MHz	CT-2	
5	Repeat adjustments						

FM **BAND SELECT SWITCH: FM** **FM DUMMY ANTENNA: 75Ω unbalance**

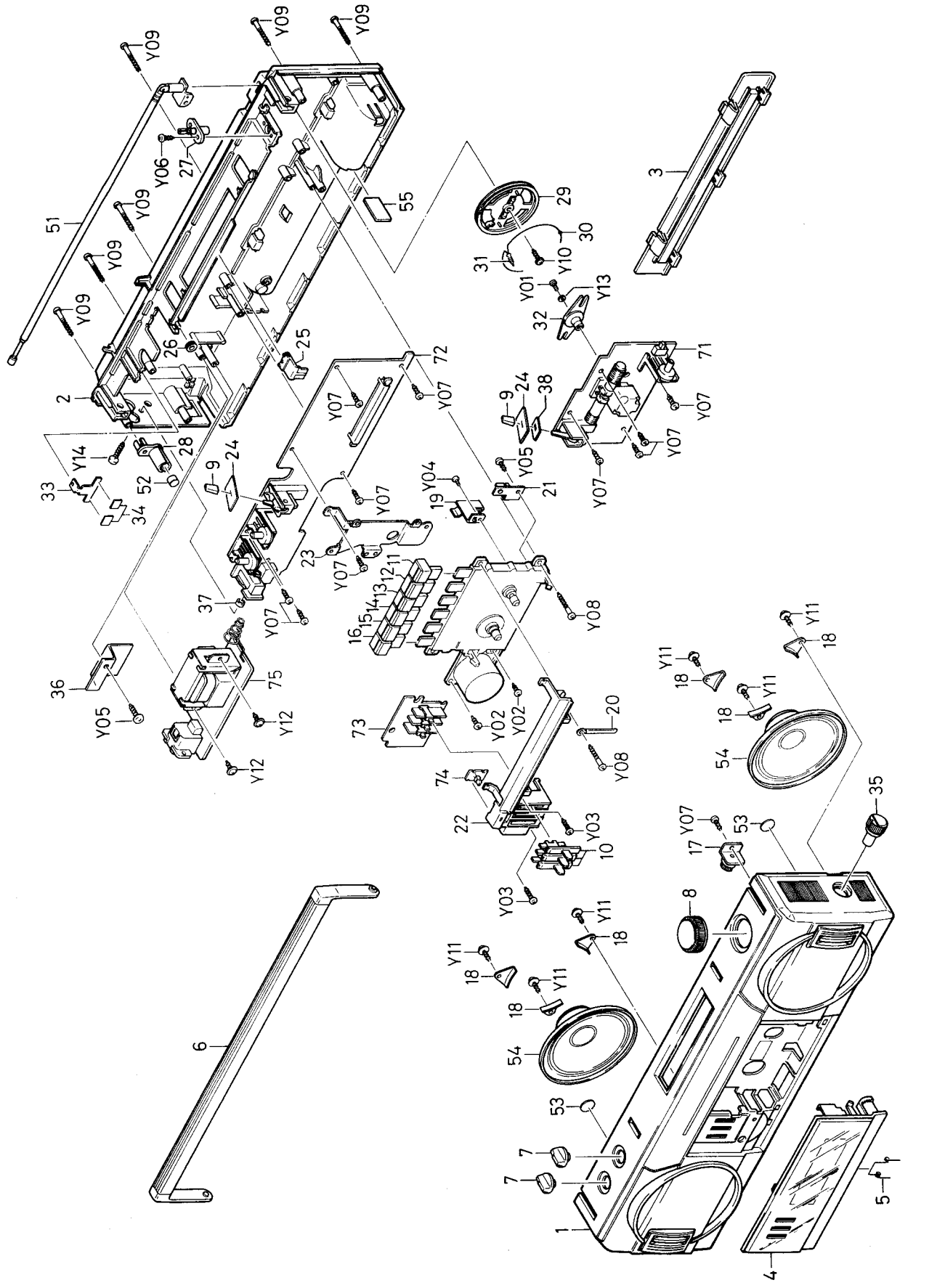
Step	Adjusting Circuit	Connections		SG Frequency	Position of tuning dial	Adjustment	VTVM Oscilloscope
		Input	Output				
1	IF	Connect sweep generator to BPF ③ & TP-2 (GND)	Connect sweep generator to IC301 (9), T303 (GND)	10.7MHz	Low	T301	
2	Detector		Connect sweep generator to IC301 (9), T303 (GND)			T303	
3	Tuning Coverage	Connect FM SG to TP-1(H) & TP-2 (GND)	Connect VTVM to speaker terminals	87.35MHz	Low End	L102	MAX.
4				108.3MHz	High End	VCT-2	
5	Tracking	Connect FM SG to TP-1(H) & TP-2 (GND)	Connect VTVM to speaker terminals	90.0MHz	90.0MHz	L101	MAX.
6				106.0MHz	106.0MHz	VCT-1	
7	Repeat adjustments						

Adjustment of FM VCO
Radio band selector: FM STEREO



Turn SVR501 until the frequency counter reads 19.00 kHz ±100 Hz.

CABINET & CHASSIS EXPLODED VIEW



PARTS LIST

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

NOTE:

* Materials of Capacitors and Resistors are abbreviated as follows;

AL ELECT .....Aluminum Electrolytic
BC CON .....Semiconductor Ceramic
CHIP BC .....Chip Semiconductor Ceramic
CHIP TAN .....Chip Tantal
ELECT .....Electrolytic
PP CON .....Polypropylene
MT GLAZE .....Metal Glaze
FP CARBON .....Flameproof Carbon

* Tolerance of Capacitors and Resistors are noted with follow symboles;

J .....±5%
K .....±10%
M .....±20%
N .....±30%
P .....+100−0%
Q .....+30−10%
Z .....+80−20%

PACKING & ACCESSORIES

Ref. No.	Part No.	Description
	141-6-133T-68204	INNER CORR CASE (EUROPE)
	141-6-133T-68206	INNER CORR CASE (FRANCE)
	141-6-145T-08500	FOAM PLASTIC CASE, LEFT
	141-6-145T-08600	FOAM PLASTIC CASE, RIGHT
	141-6-409T-28704	INST MANUAL, ENGLISH/DUTCH (EUROPE)
	141-6-409T-28708	INST MANUAL, ENGLISH/DUTCH (FRANCE)
	141-6-409T-28709	INST MANUAL,GERMAN/ FRENCH/SWEDISH (EUROPE)
	141-6-409T-28710	INST MANUAL, GERMAN/ FRENCH/SWEDISH (FRANCE)
	141-6-231T-25550	INNER POLYE COVER, 250X550MM, SET
⚠	4-243T-77981	POWER CORD, AC IN

CABINET & CHASSIS

Ref. No.	Part No.	Description
1	141-0-111T-69202	CABINET ASSY (BLACK)
	141-0-111T-69232	CABINET ASSY, (RED)
	141-0-111T-69242	CABINET ASSY, (PEARL WHITE)
2	141-0-126T-53406	BACK LID ASSY (BLACK)(EUROPE)
	141-0-126T-53410	BACK LID ASSY (BLACK)(FRANCE)
	141-0-126T-53411	BACK LID ASSY (RED)(FRANCE)
	141-0-126T-53436	BACK LID ASSY, (RED)(EUROPE)
	141-0-126T-53446	BACK LID ASSY, (PEARL WHITE)
3	141-2-128T-24200	BATTERY LID (BLACK/RED)
	141-2-128T-24270	BATTERY LID, (PEARL WHITE)
4	141-0-124T-50601	TOP LID ASSY, CASSETTE (BLACK)
	141-0-124T-50641	TOP LID ASSY, (RED)
	141-0-124T-50650	TOP LID ASSY, CASSETTE (PEARL WHITE)
5	141-2-856T-69100	SPRING COIL, TOP LID
6	141-0-171T-20635	HANDLE ASSY (BLACK)(FRANCE)
	141-0-171T-20665	HANDLE ASSY (RED)(FRANCE)
	141-0-171T-20685	HANDLE ASSY (BLACK/RED)(EUROPE)
	141-0-171T-20685	HANDLE ASSY, (RED)(EUROPE)
	141-0-171T-20691	HANDLE ASSY, (PEARL WHITE)
7	141-2-165T-01203	ROTARY KNOB, VOLUME/BALANCE
8	141-2-163T-85804	ROTARY KNOB, TUNING
9	141-2-156T-31431	CUP KNOB, BAND/FUNCTION
10	141-2-164T-44100	SLIDE KNOB, GRAPHIC EQUALIZER
11	141-2-160T-69600	PUSH BUTTON, RECORD
12	141-2-160T-71700	PUSH BUTTON, PLAY
13	141-2-160T-71800	PUSH BUTTON, REW
14	141-2-160T-71900	PUSH BUTTON, F.FWD
15	141-2-160T-72000	PUSH BUTTON, STOP/EJECT
16	141-2-160T-72100	PUSH BUTTON, PAUSE
17	141-0-581T-32003	GEAR ASSY, TOP LID
18	123-2-310R-25700	BRACKET, SPEAKER
19	141-2-853T-93100	SPRING PLATE, RECORD/PLAY
20	141-2-472T-01001	LUG, LEAD MTG.
21	141-2-290T-22800	BRACKET, MECHANISM
22	141-2-245T-17700	BACK PLATE, DIAL
23	141-2-290T-17700	BRACKET, MECHANISM
24	141-2-241T-24801	VEIL, BAND/FUNCTION SWITCH
25	141-2-511T-31100	POINTER
26	141-2-661T-19200	PULLEY, DIAL ROPE
27	141-0-566T-04610	TUNING SHAFT ASSY
28	141-2-385T-07500	BRACKET MIC, LEFT
29	141-2-538T-16300	DRUM, DIAL ROPE
30	141-2-340T-03001	ROPE, 0.3X1000MM
31	141-2-851T-06300	SPRING COIL, DIAL ROPE
32	141-2-253T-42901	JOINT, TUNING CAPACITOR
33	141-2-290T-11100	BRACKET, VOLUME
34	141-2-246T-28401	SHEET, 8X10MM, BRACKET VOLUME
35	141-2-163T-96300	ROTARY KNOB, FINE TUNING
36	141-2-135T-98300	COVER, POWER TRANSFORMER
37	141-2-461T-51200	PIPE, LINE-IN
38	141-2-352T-74100	SPACER, BAND

FIXING PARTS

Ref. No.	Part No.	Description
Y1	BJNBS1R7+5+Z1	PAN HD SCREW 1.7X5MM
Y2	BJNBS++3+6+Z1	PAN HD SCREW 3X6MM
Y3	BJNBS++314+Z1	PAN HD SCREW 3X14MM
Y4	BJSTS++2+3+Z1	PAN HD 2 SPECIAL FORMING SCREW 2X3MM
Y5	BJN2S2R6+8+Z1	PAN HD 2 TAPPING SCREW 2.6X8MM
Y6	BJN2S++3+8+Z1	PAN HD 2 TAPPING SCREW 3X8MM

PARTS LIST

Ref. No.	Part No.	Description
Y7	BJN2S++310+Z1	PAN HD 2 TAPPING SCREW 3X10MM
Y8	BJN2S++320+Z1	PAN HD 2 TAPPING SCREW 3X20MM
Y9	BJN2S++330+Z1	PAN HD 2 TAPPING SCREW 3X30MM
Y10	BJX6S++3+6+Z1	PAN WASHER HD 2 TAPPING SCREW 3X6MM
Y11	BJX6S++3+8+Z1	PAN WASHER HD 2 TAPPING SCREW 3X8MM
Y12	BJX6S++310+Z1	PAN WASHER HD 2 TAPPING SCREW 3X10MM
Y13	WJKWS++2003Z1	WASHER 2X4.3X0.3MM
Y14	BJN2S++312+Z1	PAN HD 2 TAPPING SCREW 3X12MM

ELECTRICAL PARTS

Ref. No.	Part No.	Description
51	4-244T-08100	ROD ANTENNA
52	4-153T-11771	MIC, BUILT-IN
or	4-153T-11772	MIC, BUILT-IN
or	4-153T-14171	MIC, BUILT IN
or	4-153T-14172	MIC, BUILT IN
53	4-151T-42975	SPEAKER, TWEETER
or	4-151T-47600	SPEAKER, TWEETER
54	4-151T-58100	SPEAKER, WOOFER
55	4-285T-56573	P.C BOARD, BATTERY TERMINAL
	141-2-322T-90900	SHIELD PLATE, SPEAKER
L702	4-253T-12732	FILTER, 100UH

TUNER P.C.BOARD ASSY

Ref. No.	Part No.	Description
71	141-4-285T-04304	P.C BOARD ASSY, TUNER (EUROPE)
	141-4-285T-04306	P.C BOARD ASSY, TUNER (FRANCE)
VC/VCT	4-224T-27000	TUNING CAPACITOR
CT1	4-224T-15471	TRIMMER, 30PF
CT2	4-224T-15571	TRIMMER, 11PF
CT3	4-224T-15471	TRIMMER, 30PF
CT4	4-224T-15571	TRIMMER, 11PF
T301	4-256T-23010	IFT, FM
T302	4-256T-22910	IFT, AM
T303	4-256T-27710	IFT, FM
T304	4-256T-23910	IFT, AM
L101	4-265T-02710	VHF COIL, FM
L102	4-265T-63142	VHF COIL, FM
L103	4-253T-14808	FILTER, SW
L104	4-257T-51010	ANT COIL, SW
L105	4-257T-67901	ANT COIL ASSY, MW/LW
L106	4-258T-39110	OSC COIL, SW
L107	4-258T-51810	O.S.C COIL, MW
L108	4-258T-46110	O.S.C COIL, LW
CF301	4-256T-81000	I.F FILTER, RED, FM
or	4-256T-81071	I.F FILTER, BLUE, FM
or	4-256T-81072	I.F FILTER, ORANGE, FM
or	4-256T-81073	I.F FILTER, BLACK, FM
or	4-256T-81074	I.F FILTER, WHITE, FM
CF302	4-256T-81171	I.F FILTER, AM
BPF	4-253T-17400	FILTER
S1	4-238T-98500	SWITCH, BAND SELECT
S2	4-238T-98600	SWITCH, FM MODE
VR101	4-220T-26700	VARIABLE RESISTOR, FINE TUNING
SVR501	4-220T-15182	SEMI-FIXED RESISTOR, 10K OHM
TP	4-237T-00171	TERMINAL BOARD
IC101	SITA7358P++++	IC TA7358P
IC301	SITA7640AP1++	IC TA7640AP1
or	SITA7640AP2++	IC TA7640AP2

Ref. No.	Part No.	Description
IC501	SILA3365+++++	IC LA3365
Q101	STC930+E1++C+	TR 2SC930 E1 CONV
Q102	STC930+E1++C+	TR 2SC930 E1 CONV
Q301	STC536+G+++U+	TR 2SC536 G AUD
D101	SDGMA01+++++T	DIODE GMA01
D102	SDGMA01+++++T	DIODE GMA01
D103	SC1S553+A++++	VARACTOR DIODE 1S553 A
D104	SC1S553+A++++	VARACTOR DIODE 1S553 A
D105	SDGMA01+++++T	DIODE GMA01
C101	CC+50102KDYBS	CERAMIC 0.001MF 50V K D YB
C102	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C103	CC+50200JDSLS	CERAMIC 20PF 50V J D SL
C104	CC+50050CDSLS	CERAMIC 5PF 50V C D SL
C105	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C106	CC+50150JDCHS	CERAMIC 15PF 50V J D CH
C107	CC+50240JDSHS	CERAMIC 24PF 50V J D SH
C108	CC+50030CDCJS	CERAMIC 3PF 50V C D CJ
C109	CC+50221KDYBS	CERAMIC 220PF 50V K D YB
C112	CC+50150JDSLS	CERAMIC 15PF 50V J D SL
C114	CC+50060DDSLS	CERAMIC 6PF 50V D D SL
C115	CC+50470JDSLS	CERAMIC 47PF 50V J D SL
C116	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C117	CM+50332MM++S	MYLAR 0.0033MF 50V M M
C119	CS+50341JT++S	STYROL 340PF 50V J T
C120	CC+50100DDUJS	CERAMIC 10PF 50V D D UJ
C121	CS+50251JT++S	STYROL 250PF 50V J T
C122	CC+50181JDCHS	CERAMIC 180PF 50V J D CH
C123	CC+50100DDSLS	CERAMIC 10PF 50V D D SL
C124	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C125	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C126	CC+50102KDYBS	CERAMIC 0.001MF 50V K D YB
C129	CB+25473MDXRS	BC CON 0.047MF 25V M D XR
C132	CC+50050CDSLS	CERAMIC 5PF 50V C D SL
C133	CC+50470JDSLS	CERAMIC 47PF 50V J D SL
C134	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C135	CC+50200JDSLS	CERAMIC 20PF 50V J D SL
C141	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C142	CB+25103MDXRS	BC CON 0.01MF 25V M D XR
C143	CC+50103ZDYFS	CERAMIC 0.01MF 50V Z D YF
C144	CC+50470JDSLS	CERAMIC 47PF 50V J D SL
C145	CE+50104MY++S	ELECT 0.1MF 50V M Y
C301	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C302	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C303	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C304	CC+50561KDYBS	CERAMIC 560PF 50V K D YB
C305	CE6R3227MY++S	ELECT 220MF 6.3V M Y
C306	CB+25473MDXRS	BC CON 0.047MF 25V M D XR
C307	CB+25223MDXRS	BC CON 0.022MF 25V M D XR
C308	CB+25473MDXRS	BC CON 0.047MF 25V M D XR
C309	CE+10226MY++S	ELECT 22MF 10V M Y
C310	CB+25473MDXRS	BC CON 0.047MF 25V M D XR
C311	CE+10107MY++S	ELECT 100MF 10V M Y
C501	CB+25473MDXRS	BC CON 0.047MF 25V M D XR
C502	CE+50225MY++S	ELECT 2.2MF 50V M Y
C503	CS+50102JT++S	STYROL 1000PF 50V J T
C504	CE+50474MY++S	ELECT 0.47MF 50V M Y
C505	CE+50225MY++S	ELECT 2.2MF 50V M Y
C506	CE+50225MY++S	ELECT 2.2MF 50V M Y
C507	CB+25333MDXRS	BC CON 0.033MF 25V M D XR
C508	CB+25333MDXRS	BC CON 0.033MF 25V M D XR
C509	CB+25104MDXRS	BC CON 0.1MF 25V M D XR
C510	CB+25104MDXRS	BC CON 0.1MF 25V M D XR
R101	RC/+6153JT+++	CARBON T 15K OHM J 1/6W
R102	RC/+6220JT+++	CARBON T 22 OHM J 1/6W
R103	RC/+6220JT+++	CARBON T 22 OHM J 1/6W
R104	RC/+6104JT+++	CARBON T 100K OHM J 1/6W
R105	RC/+6180JT+++	CARBON T 18 OHM J 1/6W
R107	RC/+6182JT+++	CARBON T 1.8K OHM J 1/6W
R108	RC/+6153JT+++	CARBON T 15K OHM J 1/6W
R109	RC/+6682JT+++	CARBON T 6.8K OHM J 1/6W
R110	RC/+6104JT+++	CARBON T 100K OHM J 1/6W
R111	RC/+6102JT+++	CARBON T 1K OHM J 1/6W
R113	RC/+6470JT+++	CARBON T 47 OHM J 1/6W
R114	RC/+6274JT+++	CARBON T 270K OHM J 1/6W

PARTS LIST

Ref. No.	Part No.	Description
R115	RC/+6332JT+++	CARBON T 3.3K OHM J 1/6W
R116	RC/+6152JT+++	CARBON T 1.5K OHM J 1/6W
R301	RC/+6101JT+++	CARBON T 100 OHM J 1/6W
R302	RC/+6101JT+++	CARBON T 100 OHM J 1/6W
R303	RC/+6560JT+++	CARBON T 56 OHM J 1/6W
R304	RC/+6682JT+++	CARBON T 6.8K OHM J 1/6W
R305	RC/+6104JT+++	CARBON T 100K OHM J 1/6W
R306	RC/+6220JT+++	CARBON T 22 OHM J 1/6W
R307	RC/+6153JT+++	CARBON T 15K OHM J 1/6W
R308	RC/+6101JT+++	CARBON T 100 OHM J 1/6W
R309	RC/+6101JT+++	CARBON T 100 OHM J 1/6W
R501	RC/+6681JT+++	CARBON T 680 OHM J 1/6W
R502	RC/+6682JT+++	CARBON T 6.8K OHM J 1/6W
R503	RC/+6471JT+++	CARBON T 470 OHM J 1/6W
R504	RC/+6102JT+++	CARBON T 1K OHM J 1/6W
R505	RC/+6332JT+++	CARBON T 3.3K OHM J 1/6W
R506	RC/+6332JT+++	CARBON T 3.3K OHM J 1/6W

AMP P.C.BOARD ASSY

Ref. No.	Part No.	Description
72	141-4-285T-56201	P.C BOARD ASSY, AMP (FRANCE)
	141-4-285T-56273	P.C BOARD ASSY, AMP (EUROPE)
	4-240T-53800	SOCKET, PHONES
	141-2-368T-24201	HEAT SINK, IC702 MTG.
	4-237T-00171	TERMINAL BOARD
	4-267T-03300	SOCKET, LINE IN
L701	4-258T-55410	O.S.C COIL
S701	4-238T-63871	SWITCH, RECORD/PLAY (S701~703,801~803,901~903)
S711	4-238T-44171	SWITCH, FUNCTION (S711,712,811,911)
S751	4-238T-84900	SWITCH, BEAT CANCEL
VR701	4-220T-25600	VARIABLE RESISTOR, BALANCE
VR804	4-220T-25500	VARIABLE RESISTOR, VOLUME (VR804,904)
IC701	SIM51164AL+++	IC M51164AL
IC702	SITA7769P++++	IC TA7769P
Q701	STC536+G+++U+	TR 2SC536 G AUD
Q702	STC536+G+++U+	TR 2SC536 G AUD
Q801	STC536+G+++U+	TR 2SC536 G AUD
Q901	STC536+G+++U+	TR 2SC536 G AUD
D701	SDGZA062X++++	ZENER DIODE GZA6.2X
D801	SDDS442+X+++T	DIODE DS442 X
D901	SDDS442+X+++T	DIODE DS442 X
C701	CE+16106MR++F	ELECT 10MF 16V M R
C702	CE+10226MR++F	ELECT 22MF 10V M R
C703	CE+16106MR++F	ELECT 10MF 16V M R
C704	CE+10226MR++F	ELECT 22MF 10V M R
C705	CE+16227MR++F	ELECT 220MF 16V M R
C706	CE6R3477MY++S	ELECT 470MF 6.3V M Y
C707	CE+10477MY++S	ELECT 470MF 10V M Y
C708	CC+50223ZRYFF	CERAMIC 0.022 50V Z R YF
C709	CE+16228MY++S	ELECT 2200MF 16V M Y
C714	CC+50821KRYBF	CERAMIC 820PF 50V K R YB
C715	CM+50392MR++F	MYLAR 0.0039MF 50V M R
C716	CC+50223ZRYFF	CERAMIC 0.022 50V Z R YF
C718	CC+50221KRYBF	CERAMIC 220PF 50V K R YB
C719	CC+50221KRYBF	CERAMIC 220PF 50V K R YB
C720	CC+50221KRYBF	CERAMIC 220PF 50V K R YB
C721	CC+50221KRYBF	CERAMIC 220PF 50V K R YB
C722	CC+50221KDYBS	CERAMIC 220PF 50V K D YB
C723	CC+50221KRYBF	CERAMIC 220PF 50V K R YB
C724	CC+50221KRYBF	CERAMIC 220PF 50V K R YB
C725	CE6R3477MY++S	ELECT 470MF 6.3V M Y
C727	CC+50223ZRYFF	CERAMIC 0.022 50V Z R YF
C728	CM+50103MR++F	MYLAR 0.01MF 50V M R
C729	CM+50103MR++F	MYLAR 0.01MF 50V M R
C730	CE+16106MR++F	ELECT 10MF 16V M R
C801	CB+25333MRXRF	BC CON 0.033MF 25V M R XR
C802	CB+25333MRXRF	BC CON 0.033MF 25V M R XR

Ref. No.	Part No.	Description
C803	CC+50152KRYBF	CERAMIC 0.0015MF 50V K RYB
C804	CE+10107MR++F	ELECT 100MF 10V M R
C805	CC+50182KRYBF	CERAMIC 0.0018MF 50V K RYB
C806	CB+25273MRXRF	BC CON 0.027MF 25V M R XR
C807	CE+25475MR++F	ELECT 4.7MF 25V M R
C814	CE+25475MR++F	ELECT 4.7MF 25V M R
C815	CE+25475MR++F	ELECT 4.7MF 25V M R
C816	CE+50224MR++F	ELECT 0.22MF 50V M R
C817	CC+50102KRYBF	CERAMIC 0.001MF 50V K R YB
C818	CE+10476MR++F	ELECT 47MF 10V M R
C819	CE+10476MR++F	ELECT 47MF 10V M R
C820	CM+50154MM++S	MYLAR 0.15MF 50V M M
C821	CE6R3337MY++S	ELECT 330MF 6.3V M Y
C823	CC+50222KRYBF	CERAMIC 0.0022MF 50V K RYB
C824	CC+50102KRYBF	CERAMIC 0.001MF 50V K R YB
C901	CB+25333MRXRF	BC CON 0.033MF 25V M R XR
C902	CB+25333MRXRF	BC CON 0.033MF 25V M R XR
C903	CC+50152KRYBF	CERAMIC 0.0015MF 50V K RYB
C904	CE+10107MR++F	ELECT 100MF 10V M R
C905	CC+50182KRYBF	CERAMIC 0.0018MF 50V K RYB
C906	CB+25273MRXRF	BC CON 0.027MF 25V M R XR
C907	CE+25475MR++F	ELECT 4.7MF 25V M R
C914	CE+25475MR++F	ELECT 4.7MF 25V M R
C915	CE+25475MR++F	ELECT 4.7MF 25V M R
C916	CE+50224MR++F	ELECT 0.22MF 50V M R
C917	CC+50102KRYBF	CERAMIC 0.001MF 50V K R YB
C918	CE+10476MR++F	ELECT 47MF 10V M R
C919	CE+10476MR++F	ELECT 47MF 10V M R
C920	CM+50154MM++S	MYLAR 0.15MF 50V M M
C921	CE6R3337MY++S	ELECT 330MF 6.3V M Y
C923	CC+50222KRYBF	CERAMIC 0.0022MF 50V K RYB
C924	CC+50102KRYBF	CERAMIC 0.001MF 50V K R YB
R701	RC/+4182KT++R	CARBON T 1.8KOHM K1/4WR25
R702	RC/+4332KT++R	CARBON T 3.3KOHM K1/4WR25
R703	RC/+4275KT++R	CARBON T 2.7MOHM K1/4WR25
R704	RC/+4562KT++R	CARBON T 5.6KOHM K1/4WR25
R705	RC/+4122KT++R	CARBON T 1.2KOHM K1/4WR25
R707	RC/+4100KT++R	CARBON T 10 OHM K1/4WR25
R708	RC/+44R7KT++R	CARBON T 4.7 OHM K1/4WR25
R709	RC/+4124KT++R	CARBON T 120KOHM K1/4WR25
R710	RC/+4560KT++R	CARBON T 56 OHM K1/4WR25
R801	RC/+4392KT++R	CARBON T 3.9KOHM K1/4WR25
R802	RC/+4472KT++R	CARBON T 4.7KOHM K1/4WR25
R803	RC/+4273KT++R	CARBON T 27K OHM K1/4WR25
R804	RC/+4333KT++R	CARBON T 33K OHM K1/4WR25
R805	RC/+4330KT++R	CARBON T 33 OHM K1/4WR25
R806	RC/+4472KT++R	CARBON T 4.7KOHM K1/4WR25
R807	RC/+4223KT++R	CARBON T 22K OHM K1/4WR25
R808	RC/+4562KT++R	CARBON T 5.6KOHM K1/4WR25
R809	RC/+4104KT++R	CARBON T 100KOHM K1/4WR25
R810	RC/+4562KT++R	CARBON T 5.6KOHM K1/4WR25
R811	RC/+4682KT++R	CARBON T 6.8KOHM K1/4WR25
R821	RC/+4105KT++R	CARBON T 1M OHM K1/4WR25
R822	RC/+4562KT++R	CARBON T 5.6KOHM K1/4WR25
R823	RC/+4332KT++R	CARBON T 3.3KOHM K1/4WR25
R824	RC/+4270KT++R	CARBON T 27 OHM K1/4WR25
R825	RC/+4010KT++R	CARBON T 1 OHM K 1/4W R25
R826	RC/+4101KT++R	CARBON T 100 OHM K1/4WR25
R828	RC/+4103KT++R	CARBON T 10K OHM K1/4WR25
R829	RC/+4183KT++R	CARBON T 18K OHM K1/4WR25
R901	RC/+4392KT++R	CARBON T 3.9KOHM K1/4WR25
R902	RC/+4472KT++R	CARBON T 4.7KOHM K1/4WR25
R903	RC/+4273KT++R	CARBON T 27K OHM K1/4WR25
R904	RC/+4333KT++R	CARBON T 33K OHM K1/4WR25
R905	RC/+4330KT++R	CARBON T 33 OHM K1/4WR25
R906	RC/+4472KT++R	CARBON T 4.7KOHM K1/4WR25
R907	RC/+4223KT++R	CARBON T 22K OHM K1/4WR25
R908	RC/+4562KT++R	CARBON T 5.6KOHM K1/4WR25
R909	RC/+4104KT++R	CARBON T 100KOHM K1/4WR25
R910	RC/+4562KT++R	CARBON T 5.6KOHM K1/4WR25
R911	RC/+4682KT++R	CARBON T 6.8KOHM K1/4WR25
R921	RC/+4105KT++R	CARBON T 1M OHM K1/4WR25
R922	RC/+4562KT++R	CARBON T 5.6KOHM K1/4WR25
R923	RC/+4332KT++R	CARBON T 3.3KOHM K1/4WR25

Ref. No.	Part No.	Description
R924	RC/+4270KT++R	CARBON T 27 OHM K1/4WR25
R925	RC/+4010KT++R	CARBON T 1 OHM K 1/4W R25
R926	RC/+4101KT++R	CARBON T 100 OHM K1/4WR25
R928	RC/+4103KT++R	CARBON T 10K OHM K1/4WR25
R929	RC/+4183KT++R	CARBON T 18K OHM K1/4WR25

GRAPHIC EQUALIZER P.C.BOARD ASSY

Ref. No.	Part No.	Description
73	141-4-285T-56301	P.C BOARD ASSY, GRAPHIC EQUALIZER (FRANCE)
	141-4-285T-56373	P.C BOARD ASSY, GRAPHIC EQUALIZER (EUROPE)
	4-235T-69471	SOCKET, 6P
VR801	4-220T-25400	VARIABLE RESISTOR,
VR801-1		GRAPHIC EQUALIZER (VR801,901)
C808	CB+25183MRXRF	BC CON 0.018MF 25V M R XR
C809	CB+25822MRXRF	BC CON 0.0082MF 25V M R XR
C810	CB+25153MDXRS	BC CON 0.015MF 25V M D XR
C811	CC+50102KDYBS	CERAMIC 0.001MF 50V K D YB
C812	CC+50222KRYBF	CERAMIC 0.0022MF 50V K RYB
C813	CC+50471KRYBF	CERAMIC 470PF 50V K R YB
C908	CB+25183MRXRF	BC CON 0.018MF 25V M R XR
C909	CB+25822MRXRF	BC CON 0.0082MF 25V M R XR
C910	CB+25153MDXRS	BC CON 0.015MF 25V M D XR
C911	CB+25102MRXRF	BC CON 0.001MF 25V M R XR
C912	CC+50222KRYBF	CERAMIC 0.0022MF 50V K RYB
C913	CC+50471KRYBF	CERAMIC 470PF 50V K R YB
R812	RC/+6562JT+++	CARBON T 5.6K OHM J 1/6W
R813	RC/+6183JT+++	CARBON T 18K OHM J 1/6W
R814	RC/+6393JT+++	CARBON T 39K OHM J 1/6W
R815	RC/+6183JT+++	CARBON T 18K OHM J 1/6W
R816	RC/+6682JT+++	CARBON T 6.8K OHM J 1/6W
R817	RC/+6822JT+++	CARBON T 8.2K OHM J 1/6W
R818	RC/+4272KV++R	CARBON V 2.7KOHM K1/4WR25
R819	RC/+6102JT+++	CARBON T 1K OHM J 1/6W
R820	RC/+6682JT+++	CARBON T 6.8K OHM J 1/6W
R830	RC/+6393JT+++	CARBON T 39K OHM J 1/6W
R912	RC/+6562JT+++	CARBON T 5.6K OHM J 1/6W
R913	RC/+6183JT+++	CARBON T 18K OHM J 1/6W
R914	RC/+6393JT+++	CARBON T 39K OHM J 1/6W
R915	RC/+6183JT+++	CARBON T 18K OHM J 1/6W
R916	RC/+6682JT+++	CARBON T 6.8K OHM J 1/6W
R917	RC/+4822KT++R	CARBON T 8.2KOHM K1/4WR25
R918	RC/+6272JT+++	CARBON T 2.7K OHM J 1/6W
R919	RC/+6102JT+++	CARBON T 1K OHM J 1/6W
R920	RC/+6682JT+++	CARBON T 6.8K OHM J 1/6W
R930	RC/+6393JT+++	CARBON T 39K OHM J 1/6W

LED P.C.BOARD ASSY

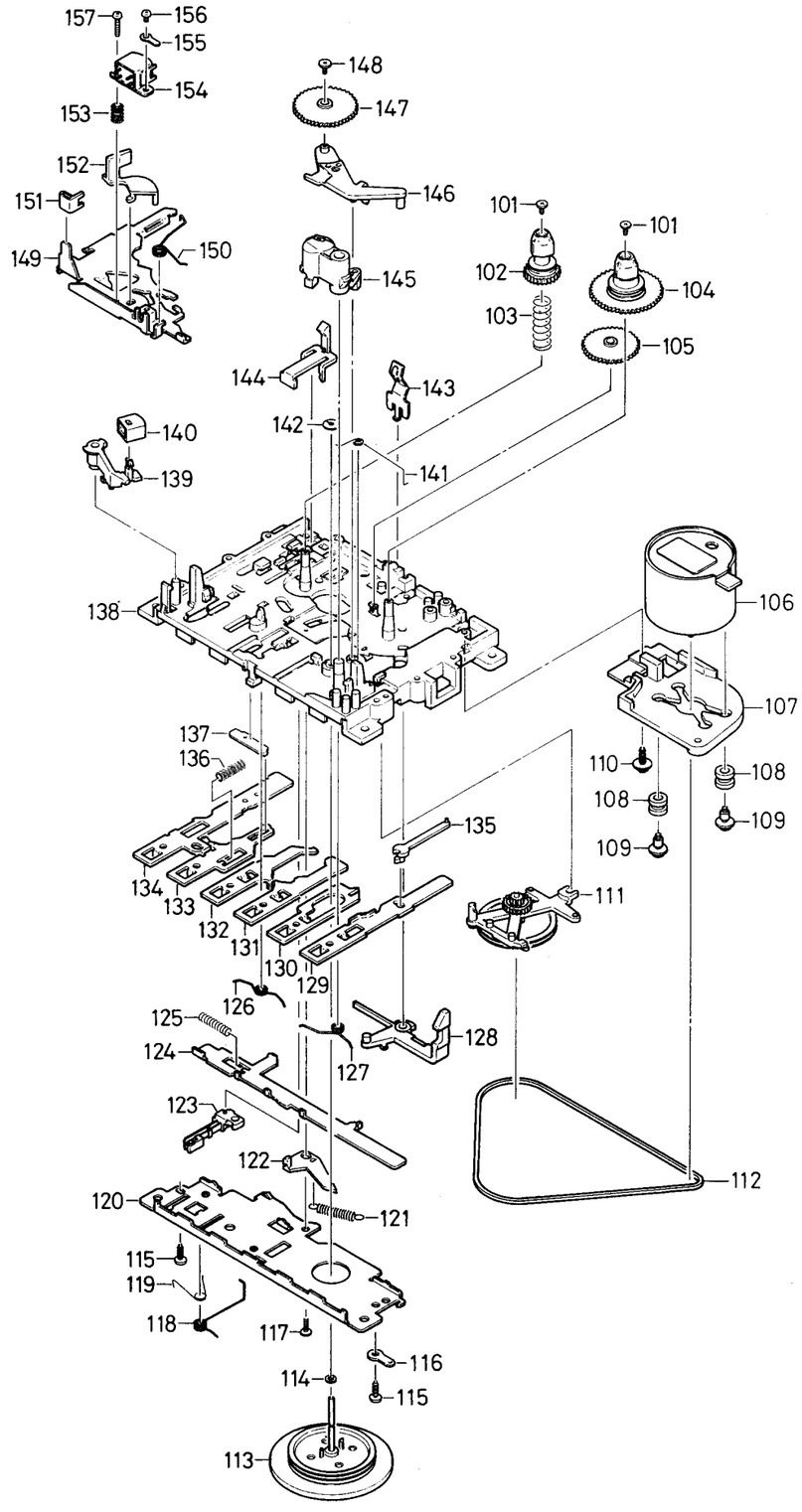
Ref. No.	Part No.	Description
74	141-4-285T-56401	P.C BOARD ASSY, LED (FRANCE)
	141-4-285T-56473	P.C BOARD ASSY, LED (EUROPE)
D706	SLSLP155B++RE	LED SLP155B RED

POWER SUPPLY P.C.BOARD ASSY

Ref. No.	Part No.	Description
75	141-4-285T-10603	P.C BOARD ASSY, POWER SUPPLY (EUROPE)
	141-4-285T-10605	P.C BOARD ASSY, POWER SUPPLY (FRANCE)
	⚠ 4-240T-86000	SOCKET, AC IN
	4-237T-00171	TERMINAL BOARD
	141-2-381T-04200	BRACKET FUSE
	⚠ 4-234T-01971	FUSE, 800MA

Ref. No.	Part No.	Description
T701	⚠ 4-320T-13300	POWER TRANSFORMER
S741	⚠ 4-238T-51100	SWITCH, VOLTAGE SELECTOR
D702	⚠ SDDS135+D++++	DIODE DS135 D
D703	⚠ SDDS135+D++++	DIODE DS135 D
D704	⚠ SDDS135+D++++	DIODE DS135 D
D705	⚠ SDDS135+D++++	DIODE DS135 D
C710	CC+50223ZDZFS	CERAMIC 0.022MF 50V Z D ZF
C711	CC+50223ZDZFS	CERAMIC 0.022MF 50V Z D ZF
C712	CC+50223ZDZFS	CERAMIC 0.022MF 50V Z D ZF
C713	CC+50223ZDZFS	CERAMIC 0.022MF 50V Z D ZF

MECHANISM EXPLODED VIEW

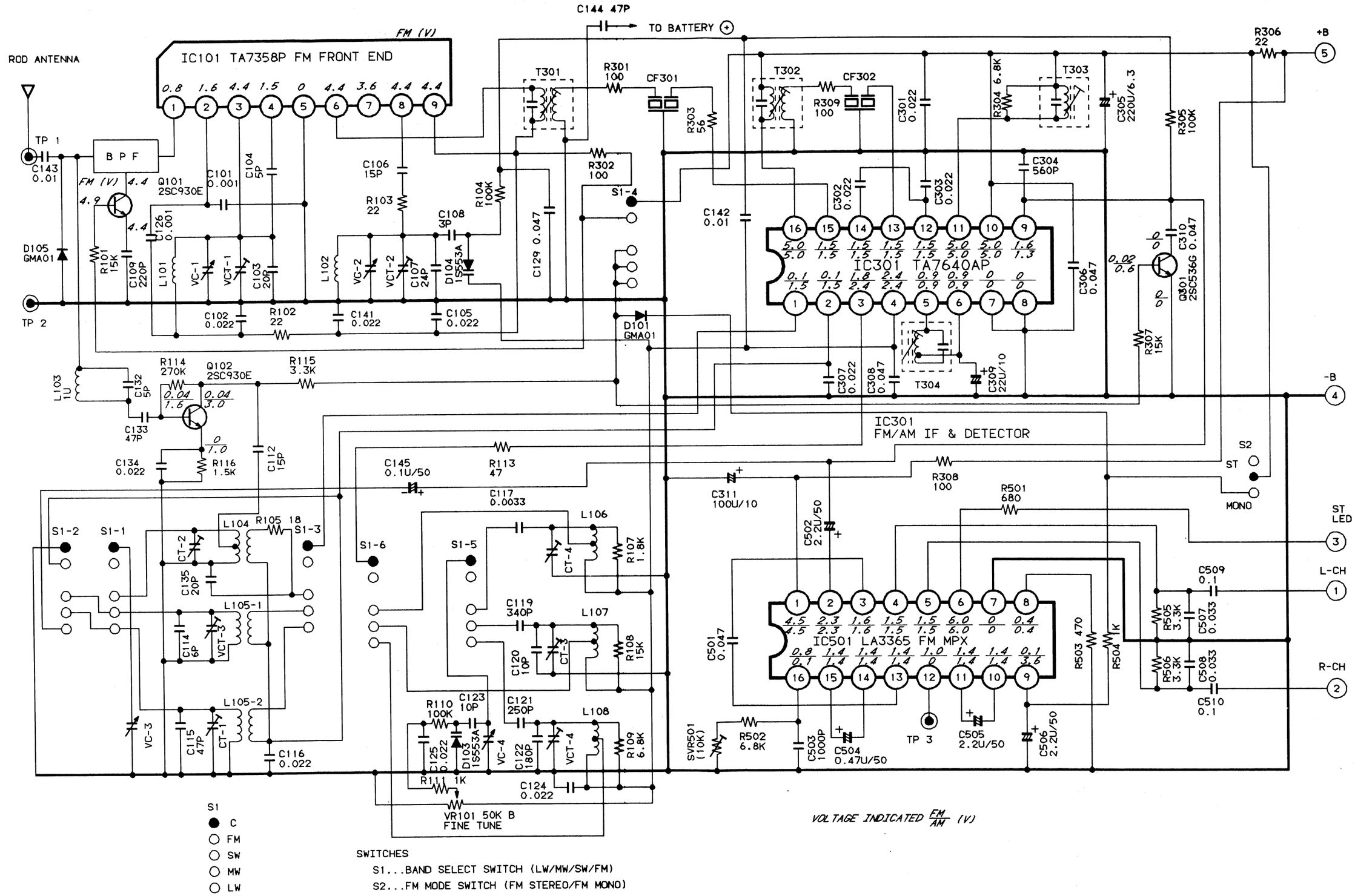


PARTS LIST

MECHANISM (TM 7030LTP)

Ref. No.	PARTS No.	Description
101	141 2 421T 62100	SPECIAL SCREW (2 USED)
102	141 2 531T 16500	REEL PLATE, SUPPLY
103	141 2 856T 61200	SPRING COIL, SUPPLY REEL
104	141 0 531T 16600	REEL PLATE ASSY, TAKE-UP
105	141 2 581T 47000	GEAR, FWD
106	4 527T 23303	COMMUTATE MOTOR ASSY
107	141 2 378T 18800	BRACKET MOTOR
108	141 2 445T 34400	RUBBER CUSHION, MOTOR MTG. (2 USED)
109	141 2 421T 61900	SPECIAL SCREW (2 USED)
110	141 2 421T 61800	SPECIAL SCREW
111	141 0 740T 44300	LEVER ASSY, POWER ARM, S731
112	141 2 564T 41000	SQUARE BELT
113	141 0 521T 17100	FLYWHEEL ASSY
114	141 2 453T 30100	WASHER, GN, 2.1 x 4 x 0.13mm
115	141 2 421T 62000	SPECIAL SCREW (2 USED)
116	141 2 472T 14400	LUG, GROUND
117	141 2 421T 66000	SPECIAL SCREW
118	141 2 860T 09600	SPRING WIRE
119	141 2 860T 09700	SPRING WIRE
120	141 2 737T 12300	BRACKET SLIDE
121	141 2 856T 61600	SPRING COIL
122	141 2 740T 44200	LEVER
123	4 248T 17500	SWITCH, MECHANISM
124	141 2 732T 42500	SLIDE, FUNCTION
125	141 2 856T 61500	SPRING COIL
126	141 2 860T 09500	SPRING WIRE
127	141 2 860T 09400	SPRING WIRE
128	141 2 740T 44400	LEVER, EJECT ARM
129	141 2 732T 41900	SLIDE, PAUSE
130	141 2 732T 42000	SLIDE, PLAY
131	141 2 732T 42100	SLIDE, F, FWD
132	141 2 732T 42200	SLIDE, REW
133	141 2 732T 42300	SLIDE, PLAY
134	141 2 732T 42400	SLIDE, RECORD
135	141 2 614T 06600	LEVER LOCK, PAUSE
136	141 2 856T 61400	SPRING COIL
137	141 2 740T 44100	LEVER, REC/STOP
138	141 0 311T 53600	CHASSIS ASSY
139	141 2 740T 43700	LEVER, ERASING HEAD
140	4 242T 38000	MAGNETIC HEAD, ERASING
141	141 2 860T 09300	SPRING WIRE, GROUND
142	141 2 457T 51600	SPECIAL WASHER, FLYWHEEL
143	141 2 853T 94100	SPRING PLATE, CASSETTE
144	141 2 740T 43900	LEVER, UNRECORDING SENSOR
145	141 0 545T 11000	LEVER PINCH ROLLER ASSY
146	141 2 740T 43800	LEVER, IDLER ARM
147	141 2 581T 47100	GEAR, IDLER
148	141 2 421T 61500	SPECIAL SCREW
149	141 2 732T 41800	SLIDE, HEAD BASE
150	141 2 860T 09200	SPRING WIRE, PINCH ARM
151	141 2 821T 14300	TAPE GUIDE
152	141 2 740T 44000	LEVER, TAPE SENSOR
153	141 2 856T 61300	SPRING COIL, HEAD AZIMUTH
154	4 242T 36571	MAGNETIC HEAD, RECORD/PLAY
155	141 2 472T 00200	LUG, RECORD/PLAY HEAD
156	141 2 421T 61700	SPECIAL SCREW
157	141 2 421T 61600	SPECIAL SCREW

SCHEMATIC DIAGRAM (TUNER)



SWITCHES

S1...BAND SELECT SWITCH (LW/MW/SW/FM)

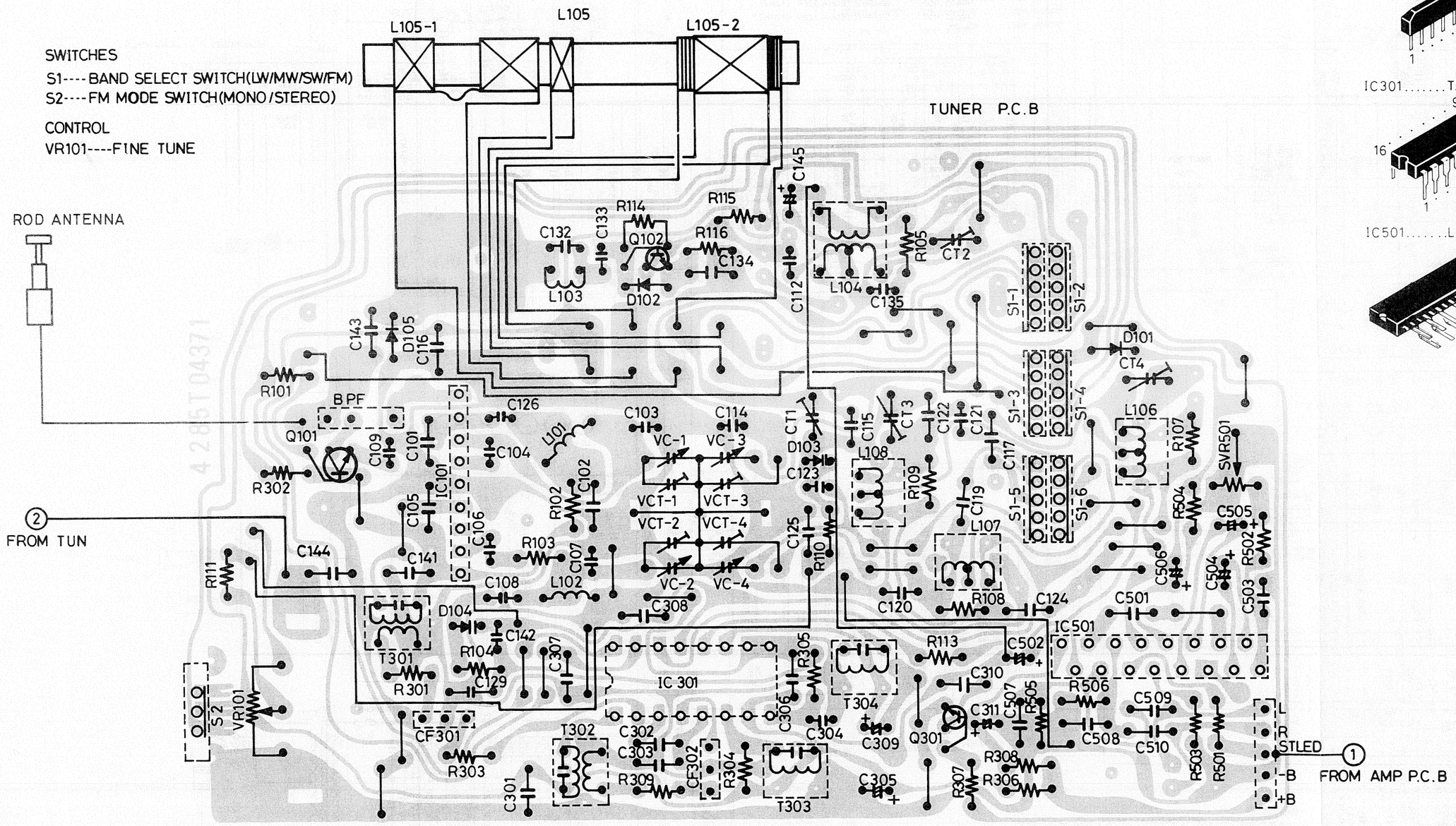
S2...FM MODE SWITCH (FM STEREO/FM MONO)

SWITCHES
S1----BAND SELECT SWITCH(LW/MW/SW/FM)
S2----FM MODE SWITCH(MONO/STEREO)

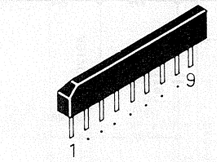
CONTROL
VR101----FINE TUNE

ROD ANTENNA

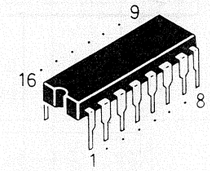
TUNER P.C.B



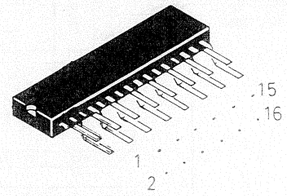
IC101.....TA7358



IC301.....TA7640



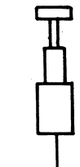
IC501.....LA3365



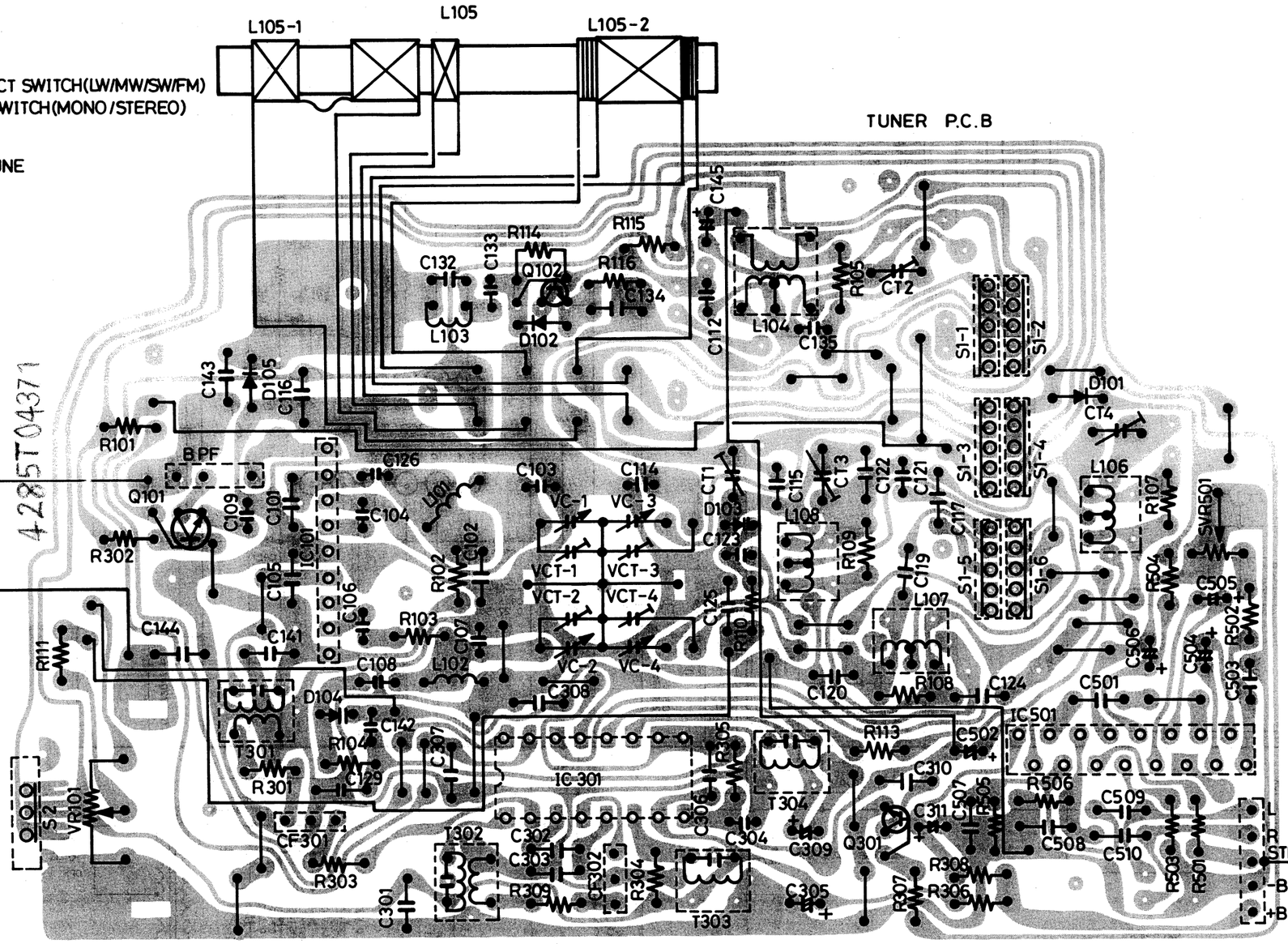
SWITCHES
S1----BAND SELECT SWITCH(LW/MW/SW/FM)
S2----FM MODE SWITCH(MONO/STEREO)

CONTROL
VR101----FINE TUNE

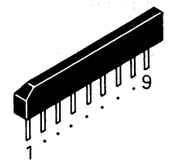
ROD ANTENNA



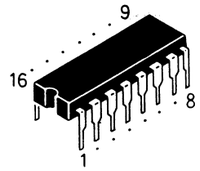
2
FROM TUN



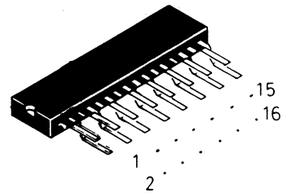
IC101.....TA7358



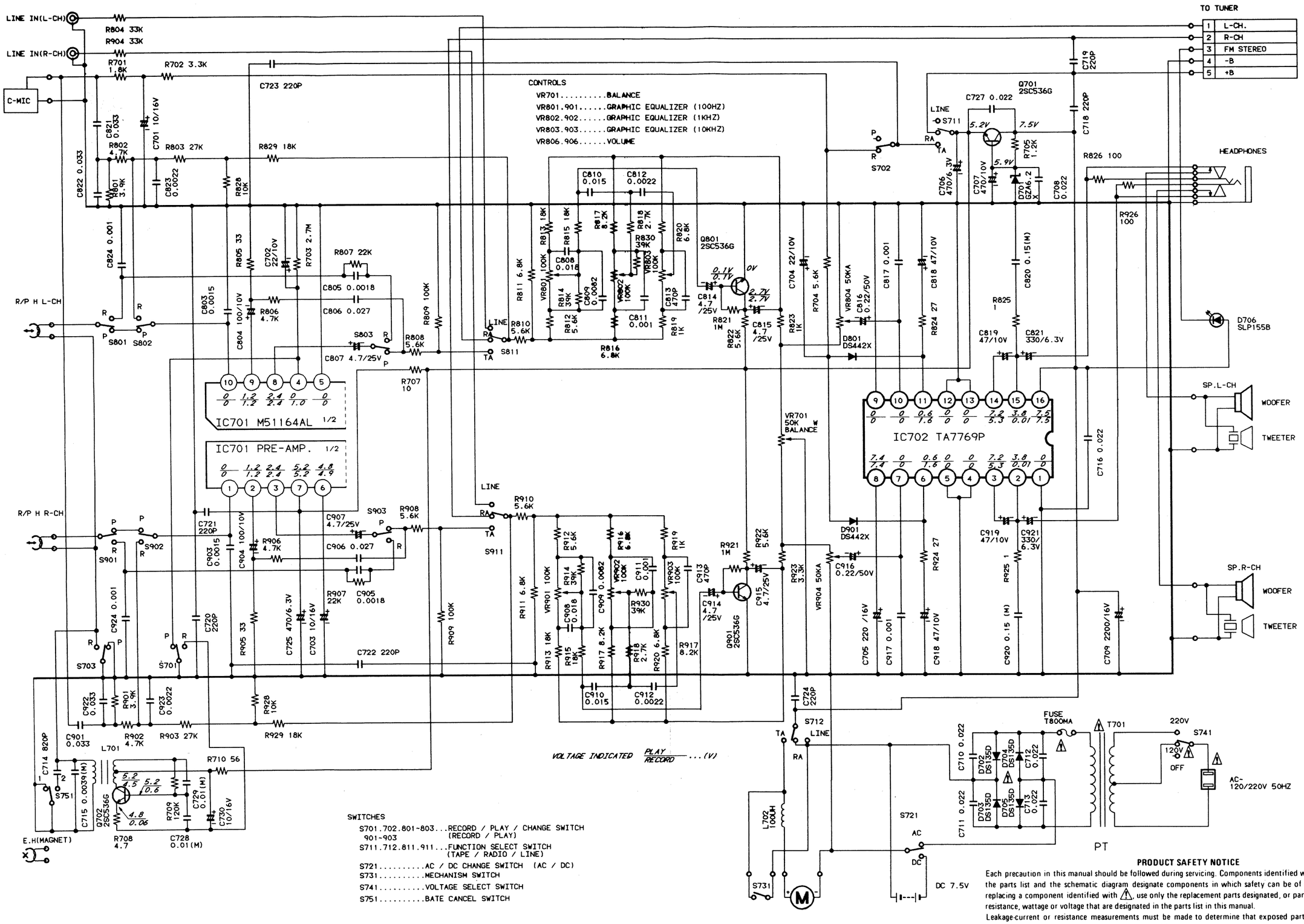
IC301.....TA7640



IC501.....LA3365



SCHEMATIC DIAGRAM (AMP)



SWITCHES

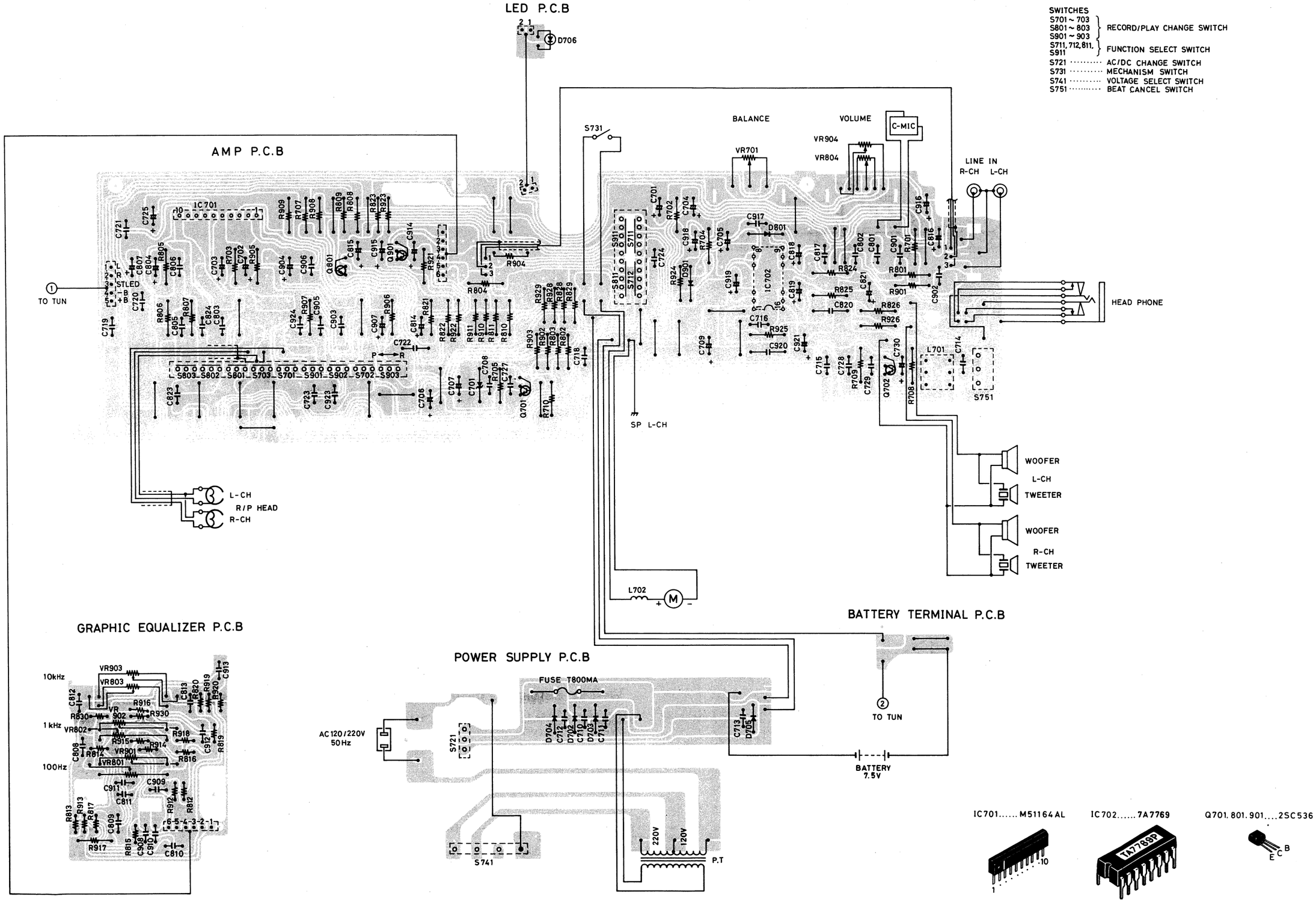
S701.702.801~803...RECORD / PLAY / CHANGE SWITCH
901~903 (RECORD / PLAY)
S711.712.811.911...FUNCTION SELECT SWITCH
(TAPE / RADIO / LINE)
S721.....AC / DC CHANGE SWITCH (AC / DC)
S731.....MECHANISM SWITCH
S741.....VOLTAGE SELECT SWITCH
S751.....BATE CANCEL SWITCH

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.

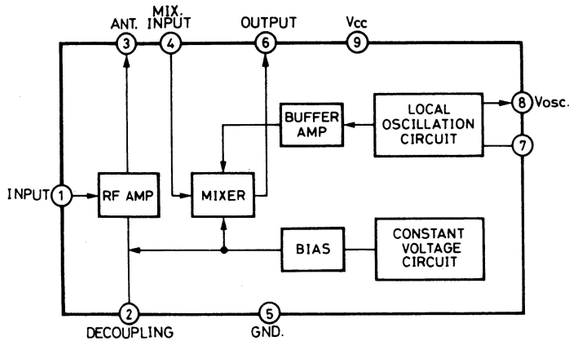
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

WIRING DIAGRAM (AMP)

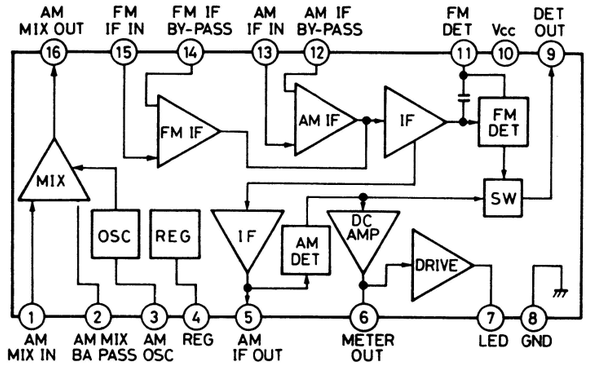


IC BLOCK DIAGRAM

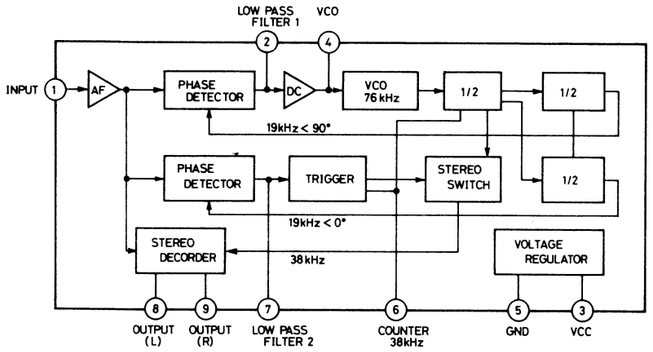
IC101 TA7358P FM FRONT END



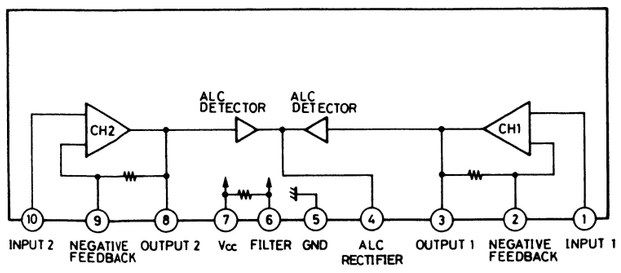
IC301 TA7640AP FM/AM IF AMP & DETECTOR



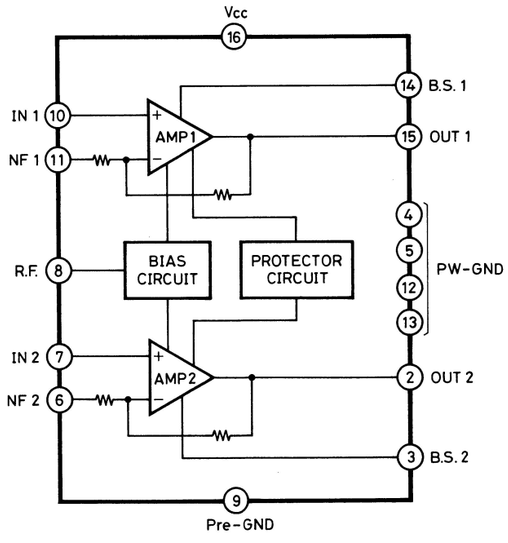
IC501 TA7343P FM MPX



IC701 M51164AL PRE-AMP.



IC702 TA7769P POWER AMP



FISHER

FISHER Hi-Fi Europa Vertriebs GmbH

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Tlx: 524033

Technisches Labor/
Qualitätskontrolle — Durchwahl –120/121

Funkstörmeßlabor –127/128

Service-Zentrale
Color TV –166
Hi-Fi/Audio –168
Video –172
Autoradio –170
Ersatzteillager –155/156
Techn. Schulung –174

Weitere Service-Zentralen in BRD (keine Ersatzteilbestellungen)

Offenbach/ Frankfurt	Frankfurter Straße 121 6050 Offenbach	Tel: 069/88 80 45/48 Tlx: 4 12 558	Hamburg	Spaldingstraße 1 2000 Hamburg	Tel: 040/23 12 23/24 Tlx: 2 173 839
Military	Frankfurter Straße 121 6050 Offenbach	Tel: 069/88 80 45/48 Tlx: 4 12 558	Ditzingen	Max-Eyth-Straße 11 7257 Ditzingen	Tel: 07156/50 88 Tlx: 7 245 278
Düsseldorf-Erkrath	Albert-Einstein-Straße 8 4006 Erkrath 1	Tel: 0211/200 05-0 Tlx: 8 588 563	Berlin (Fisher Vertragswerkstatt)	Drewitz & Kaulbach Eisenacher Straße 53 1000 Berlin 62	Tel: 030/781 20 01 Tlx: 186 460

Unser FISHER-Team steht Ihnen jederzeit gerne zur Verfügung. Ersatzteilbestellungen wickeln Sie bitte ausschließlich mit unserer Service-Zentrale München ab.
Senden Sie uns im Garantiefall die ausgefüllte Garantiekarte ein. Bei unverkauften Lagergeräten des Fachhandels gilt als Garantienachweis eine eidesstattliche Versicherung mit eingetragener Modellbezeichnung und Geräte-Nummer oder ein Liefernachweis. Die gleiche Regelung besteht auch für Reparaturaufträge.
Bitte geben Sie unbedingt die Ersatzteil-Nummer und die Modellbezeichnung an.
Sie sparen so wertvolle Zeit. Vielen Dank.

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